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| 10/524,447 | 10/13/2005 | Lothar Stadelmeier | 282717US8XPCT | 6248 |

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| EXAMINER | |
|---|---|
| TORRES, MARCOS L | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2617 | |

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|---|---|
| 01/20/2010 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/524,447 | STADELMEIER ET AL. | |
| | Examiner | Art Unit | |
| | MARCOS L. TORRES | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *26 February 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11-25-09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.,* 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen US 6026297A in view of Schmidt US 20030035388A1 in view Johansson 20030076842.

As to claim 9, Haartsen '297 discloses a controller of a wireless ad hoc network including a plurality of wireless terminals, comprising a splitting unit configured to control the splitting of said wireless ad hoc network, wherein a new wireless ad hoc network is

spawned that includes at least one of said plurality of wireless terminals and/or one or more new wireless terminals, wherein the central controller is configured to check whether more bandwidth than a certain amount of available bandwidth is required by some of said plurality of wireless terminals (see col. 6, lines 7-30). Haatseen does not specifically disclose wherein the central controller is configured to check whether more bandwidth than a certain amount of available bandwidth is required by said plurality of wireless terminals. In an analogous art, Schmidt discloses wherein the central controller is configured to check whether more bandwidth than a certain amount of available bandwidth is required by said plurality of wireless terminals (see par. 0017-0019). Therefore, it would had been obvious to one of the ordinary skills in the art at the time of the invention was made to combine these teachings to provide the proper bandwidth for communication as suggested in par. 0006. The prior reference fail to disclose wherein said at least one of said plurality of wireless terminals exclusively belongs to said new wireless ad hoc network. In another analogous art, Johansson discloses wherein said at least one of said plurality of wireless terminals exclusively belongs to said new wireless ad hoc network (see fig. 3, items 310-330, 350-370; par. 0013-0014) [note that master node exclusively belongs to only one network]. Therefore, it would had been obvious to one of the ordinary skills in the art at the time of the invention was made to combine these teachings to permit the node to become a master mode.

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen '297 in view of Haartsen 7016372 in view of Schmidt US 20030035388A1 and further in view Johansson 20030076842.

As to claim 1, Haartsen '297 discloses a method for a wireless ad hoc network configured to operate in a certain communication channel with a certain amount of available bandwidth comprising a plurality of wireless terminals (see col. 1, lines 13-17), the method comprising splitting up said wireless ad hoc network such that at least one new wireless ad hoc network is spawned (see col. 2, lines 38-54; col. 3. lines 46-65), wherein after the split of said wireless ad hoc network at least one wireless terminal of said wireless ad hoc network and/or one or more new wireless terminals belong(s) to said at least one new wireless ad hoc network (see col. 3. lines 46-65), and said at least one new wireless ad hoc network is operating in a respective different communication channel (see col. 1 lines 35-46; col. 5, line 12 – col. 6, line 11). Haartsen does not specifically disclose to provide additional bandwidth if more bandwidth than said certain amount of available bandwidth is required by said plurality of wireless terminals. In an analogous art, Haartsen '372 disclose to provide additional bandwidth if more bandwidth than said certain amount of available bandwidth is required by said plurality of wireless terminals (see col. 1, lines 13-17; col. 5, lines 49-56; col. 7, lines 25-41). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to combine the teachings for the simple purpose of providing adequate bandwidth as suggested by Haartsen '372 in col. 5, line 49-56. The prior references provide additional bandwidth between the terminals. In an analogous art,

Schmidt discloses checking by a central controller of said wireless ad hoc network whether more bandwidth than said certain amount of available bandwidth is required by said plurality of wireless terminals (see par. 0017-0019). Therefore, it would had been obvious to one of the ordinary skills in the art at the time of the invention was made to combine these teachings to provide the proper bandwidth for communication as suggested in par. 0006. The prior reference fail to disclose wherein said at least one of said plurality of wireless terminals exclusively belongs to said new wireless ad hoc network. In another analogous art, Johansson discloses wherein said at least one of said plurality of wireless terminals exclusively belongs to said new wireless ad hoc network (see fig. 3, items 310-330, 350-370; par. 0013-0014) [note that master node exclusively belongs to only one network]. Therefore, it would had been obvious to one of the ordinary skills in the art at the time of the invention was made to combine these teachings to permit the node to become a master mode.

As to claim 2, Haartsen '297 discloses a method further comprising controlling said wireless ad hoc network and the splitting of said wireless ad hoc network by said central controller of said wireless ad hoc network that decides which wireless terminals of said wireless ad hoc network and/or which new wireless terminals are moved to said at least one new wireless ad hoc network, wherein the decision is based on certain separation criteria, and said central controller determines a new central controller for said at least one new wireless ad hoc network (see col. 6, lines 12-37), which said separation criteria assure that wireless terminals that have the same connection (see col. 5, lines 12 – col. 6, line11).

As to claim 3, Haartsen '297 discloses everything as explained above except for a method further comprising said wireless ad hoc network and said at least one new wireless ad hoc network are according to the IEEE802.11 or ETSI BRAN HIPERLAN/2 standard. In an analogous art, Haartsen '372 disclose a method characterized in that said wireless ad hoc network and said at least one new wireless ad hoc network are operated according to the IEEE802.11 or ETSI BRAN HIPERLAN/2 standard (see col. 2, lines 11-45). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to use the above teaching in any of the common available network for the simple purpose of compatibility.

As to claim 4, Haartsen '297 discloses the method further comprising said certain separation criteria assure that wireless terminals with certain connections that should not be interrupted are not moved to said at least one new wireless ad hoc network (see col. 4, lines 33-40).

As to claim 5, Haartsen '297 discloses a method further comprising providing new commands in order to spawn said at least one new wireless ad hoc network, wherein a requesting command is sent to a request wireless terminal to ask this request wireless terminal to move to said at least one new ad hoc wireless network (see col. 6, lines 7-30). Haartsen '297 does not specifically disclose a confirmation command is used by a request wireless terminal to signal that it can move to said at least one new ad hoc wireless network. In an analogous art, Haartsen '372 disclose a confirmation command is used by a request wireless terminal to signal that it can move to said at least one new ad hoc wireless network (see col. 8, line 16 – col. 9, line 25). Therefore, it

would have been obvious to one of the ordinary skills in the art at the time of the invention to use the common and well known technique of acknowledging a message for the simple purpose letting know the first device that message was received.

As to claim 6, Haartsen '297 discloses a method further comprising that a wireless terminal stops using its entire wireless connections the moment it sent out a command moves to one of said at least one new wireless ad hoc network (see col. 4, lines 50-55). The combination of the references fails to show the steps of waits until it receives a start command sent out by a central controller, and then starts using its wireless connections according to the information provided by said start command. However, it is noted that the above steps the wireless terminal it is merely following the instruction of the master device and it would have been obvious to one of the ordinary skills in the art at the time of the invention to follow the instructions and transmit only when instructed to do so for the simple purpose of avoiding interference and message collisions.

6. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen '297 in view of Haartsen 7016372 and further in view of Johansson.

As to claim 7, Haartsen '297 discloses a wireless terminal of a wireless ad hoc network configured to be controlled by a central controller of said wireless ad hoc network characterized by a receiving unit configured to receive a requesting command from the central controller indicating certain operating conditions for the wireless terminal (see col. 6, lines 7-30), a condition checking unit configured to check if the wireless terminal can be operated under said certain conditions (see col. 5, lines 53-63).

Haartsen '297 does not specifically disclose a confirmation command is used by a request wireless terminal to signal that it can move to said at least one new ad hoc wireless network. In an analogous art, Haartsen '372 disclose a confirmation command is used by a request wireless terminal to signal that it can move to said at least one new ad hoc wireless network, to ask the wireless terminal to move to a new ad hoc wireless network terminal to signal that the wireless terminal can move to said new wireless network. (see col. 8, line 16 – col. 9, line 25). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to use the common and well known technique of acknowledging a message for the simple purpose letting know the first device that message was received. The prior reference fails to disclose a command to leave said wireless ad hoc network. In another analogous art, Johansson discloses a command to leave said wireless ad hoc network (see par. 0069). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention was made to issue such command for the simple purpose of managing the network according the monitored conditions thereby optimizing the network.

As to claim 8, Haartsen '297 discloses a wireless terminal characterized in that said certain conditions define if said wireless terminal can operate as a central controller of a wireless ad hoc network, a certain communication channel at which said wireless terminal is able to operate, and/or a moment in time at which said wireless terminal shall operate in said certain communication channel and at which it may be controlled by a different central controller (see col. 6, lines 12-37).

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen US006026297A in view of Haartsen 7016372 and Johansson as applied to claim 7 above, and further in view of Schmidt.

As to claim 11, Haartsen '297 discloses a wireless ad hoc network comprising a plurality of wireless terminals, and a central controller characterized by a splitting means that controls the splitting of said wireless ad hoc network, wherein a new wireless ad hoc network is spawned that comprises at least one of said plurality of wireless terminals and/or one or more new wireless terminals (see col. 6, lines 12-37). The Haartsen references fail to disclose wherein said at least one of said plurality of wireless terminals exclusively belongs to said new wireless ad hoc network. In another analogous art, Johansson discloses wherein said at least one of said plurality of wireless terminals exclusively belongs to said new wireless ad hoc network (see fig. 3, items 310-330, 350-370; par. 0013-0014) [note that master node exclusively belongs to only one network]. Therefore, it would had been obvious to one of the ordinary skills in the art at the time of the invention was made to combine these teachings to permit the node to become a master mode. The prior reference does not specifically disclose wherein the central controller is configured to check whether more bandwidth than a certain amount of available bandwidth is required by said plurality of wireless terminals. In an analogous art, Schmidt discloses wherein the central controller is configured to check whether more bandwidth than a certain amount of available bandwidth is required by said plurality of wireless terminals (see par. 0017-0019). Therefore, it would had been obvious to one of the ordinary skills in the art at the time of the invention was

made to combine these teachings to provide the proper bandwidth for communication as suggested in par. 0006.

8. Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen US006026297A in view of Schmidt and Johansson as applied to claim 9 above, and further in view of Haartsen 7016372.

As to claim 10, Haartsen '297 discloses a central controller wherein the splitting means comprises unit includes: a sending unit configured to sends send out requesting commands to wireless terminals and an operating unit configured to decide which of said plurality of wireless terminals and/or of said new wireless terminals may be moved to said new wireless ad hoc network and determines a wireless terminal of said plurality of wireless terminals and/or of said new wireless terminals that becomes the central controller of said new wireless ad hoc network (see col. 2, lines 38-54; col. 3. lines 46-65; see col. 5, lines 53-63). Haartsen '297 and Schmidt do not specifically disclose a confirmation command is used by a request wireless terminal to signal that it can move to said at least one new ad hoc wireless network. In an analogous art, Haartsen '372 disclose a confirmation command is used by a request wireless terminal to signal that it can move to said at least one new ad hoc wireless network (see col. 8, line 16 – col. 9, line 25). Therefore, it would have been obvious to one of the ordinary skills in the art at the time of the invention to use the common and well known technique of acknowledging a message for the simple purpose letting know the first device that message was received.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARCOS L. TORRES whose telephone number is (571)272-7926. The examiner can normally be reached on 9:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-252-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/
Supervisory Patent Examiner, Art Unit 2617

/Marcos L Torres/
Examiner, Art Unit 2617